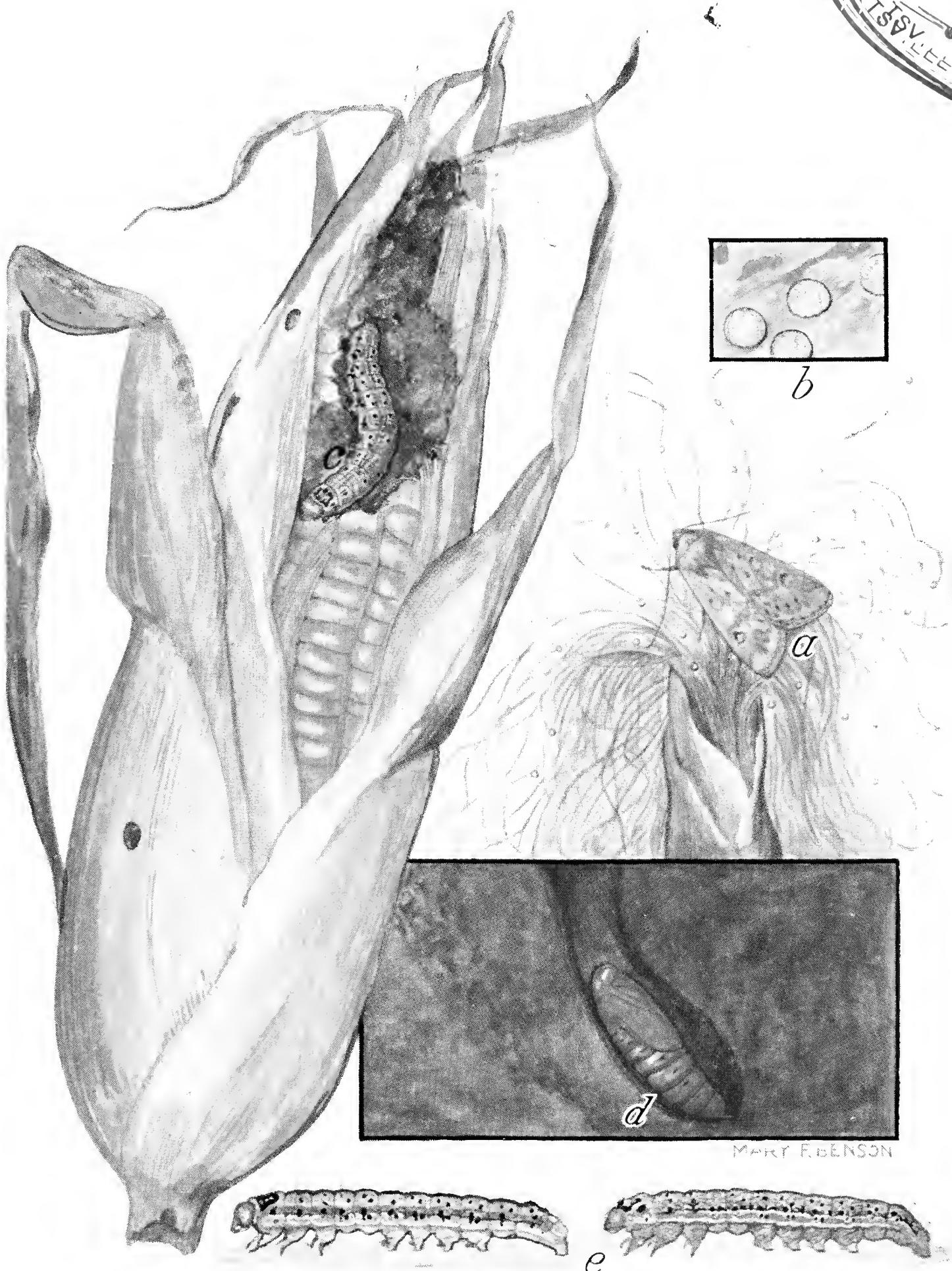


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CORN EARWORM



a, Moth (or adult), and eggs on silks; b, eggs; c, earworm feeding in ear of corn; d, pupa in a cell; e, color phases of the earworm. (All except b about $1\frac{1}{3}$ times natural size; b $5\frac{1}{2}$ times natural size.)

(See other side for life history and control)

CORN EARWORM

(*Heliothis armigera* (Hbn.))

Although the corn earworm attacks many cultivated crops, it is dealt with here only as an enemy of corn. The eggs are laid by the moth, usually on the corn silks. These eggs hatch in from 2 to 8 days, and the tiny larvae or caterpillars feed downward, following the silks into the ear tip. Serious damage to the ear frequently results from their feeding and from the fermentation or molds which follow. When full-grown, the larva leaves the ear, enters the soil, and becomes a pupa, and from this the moth emerges. About 30 days are required in midsummer for complete development from egg to adult. Pupae produced late in the summer or in the fall may pass the winter in the soil and become moths the following spring or early in the summer. Usually two complete generations are developed annually in the North, but in the South there may be as many as five or more generations.

Control

Injury to field corn can be reduced by growing strains with long, tight husks and, in the South, by planting early.

Sweet corn can be protected by spraying. Prepare an emulsion by mixing 3 quarts of 25-percent DDT emulsifiable concentrate (obtainable commercially) and 2½ gallons of white mineral oil of 65 to 95 seconds Saybolt viscosity thoroughly with water to make 25 gallons. For a smaller quantity use ¼ pint of the DDT emulsifiable concentrate and ¾ pint of the oil with water to make 1 gallon of spray. Apply the spray to the ears 1 day after silks appear in the field and again 2 days later. A third application 2 days after the second usually increases the control. Spray only enough of the mixture onto the silks to wet them. Twenty-five gallons of the spray is enough for 1 acre of corn, and 1 gallon will take care of a plot about 17 by 100 feet.

A spray similarly prepared, but including only 1¼ gallons of mineral oil in a 25-gallon lot, can be applied to the entire plant to reduce "budworm" damage by the earworm to sweet corn before tasseling and silking.

Any good hand sprayer is satisfactory for treating garden plots of sweet corn. For commercial acreage use a high-clearance power sprayer with hollow-cone nozzles adjusted to give adequate but not excessive coverage of the ears. Shake the emulsion well so that the oil will not separate.

The earworm can also be controlled in small plantings of sweet corn by injecting into the silk at the tip of each ear about ¼ teaspoonful of refined white mineral oil. If obtainable, use a ready-mixed oil containing 0.2 percent of pyrethrins. Apply with a pump-type, long-spouted oilcan, or use a glass medicine dropper filled about half full of oil for a small ear and three-fourths full for a large ear. Do not apply until the silks have wilted and have begun to turn brown at the tips. Earlier treatment will interfere with pollination and result in poorly filled ears.

WARNING. Because of the danger of poisonous residues, husks or other parts of corn plants treated with DDT should not be fed to dairy animals or to meat animals being finished for slaughter.

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